Material Safety Data Sheet [OSHA 29 CFR 1910.1200]

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MSDS 97-II

SECTION I: PRODUCT IDENTIFICATION

QUIKRETE® Product Name	Code #
DRIVEWAY CRACK FILLER	8720

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components	CAS No.	TLV (ACGIH) mg/M^3
Petroleum Asphalt	8052-42-4	5
Hydrous Aluminum Sulfate	1332-58-7	10
Water	7732-18-5	not hazardous

Hazardous Materials Identification System: (HMIS RATING) Health - 1 Flammability -1 Reactivity - 0
Hazard Ranking: 0 - Least 1 - Slight 2 - Moderate 3 - High 4 - Extreme

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

The following are approximate or typical values and should not be used for precise design purposes.
Boiling Range: 212°F IBP (ASTM D 86) Vapor Pressure: Approximately 60 Hg @ 100°F - estimated
Specific Gravity: Greater than 1.00 Vapor Density: N/A
Molecular Weight: N/A pH: 7.0 - 10.0
Solubility in Water : an emulsion, partially miscible
Percent Volatile by Volume: Less than 55 percent complex mixture of hydrocarbons
Viscosity: A liquid consistency 3,000 cps @ 77°F, pourable material

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: (Minimum) N/A (a water based product)
Autoignition Temperature: Asphalt Component: greater than 400°F ASTM E 659
National Fire Protection Association (NFPA) - Hazard Identification: Health- 1 Flammability- 1 Reactivity- 0
Handling Precautions: Keep containers tightly closed. Keep containers cool and dry. Use this product with adequate ventilation.
Flammable or Explosive Limits: (Approximate percent by volume in air) Lower (LEL): N/A Upper (UEL): N/A
Extinguishing Media and Fire Fighting Procedures: Extinguish with dry chemical, CO_2, universal type foam, and water fog. DO NOT USE WATER. Petroleum based compounds can float on water. DO NOT enter any enclosed or confined fire space without proper protective equipment, including self contained breathing apparatus.
Decomposition Products Under Fire Conditions: May form toxic materials; carbon dioxide an monoxide oxides of sulfur, and water vapor.
"Empty" Container Warning: Dispose of in an environmentally safe manner and in accordance with governmental regulations. "Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME,

CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. For work on tanks, refer to OSHA regulation ANSI Z49.1 and other governmental and industrial references pertaining to cleaning, repairing, welding or other contemplated operations.

SECTION V - REACTIVITY DATA

Stability: stable

Hazardous Polymerization: will not occur

Hazardous Decomposition Products: Hazardous decomposition products include: carbon dioxide monoxide, and sulfur dioxides.

Incompatibility (Material to Avoid): Avoid contact with strong oxidizing agents such as: liquid chlorine, sodium or calcium hypochlorite, nitrates and peroxides, etc.

Conditions to Avoid: None known.

SECTION VI - HEALTH HAZARD DATA

Variability Among Individuals: Health studies have shown that individual sensitivities vary from person to person. As a precaution, exposure to vapors, liquids, mists, or fuses should be minimized.

Effects of Overexposure:

Eye Contact: Biocides contained in this substance are severe irritants.

Skin Irritation: Biocides contained in this substance are severe irritants to abraded skin.

Dermal Toxicity: The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if it gets on the skin. This hazard evaluation is based on data from similar materials.

Respiratory/Inhalation: If inhaled, the asphalt component is considered practically non-toxic to internal organs. This hazard evaluation is based on data from similar materials.

Ingestion: Biocides have an LD_{50} (oral) 770 mg/kg rat. The other components, the systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if swallowed. This hazard evaluation is based on data from similar materials.

Carcinogenicity: No association has been established between industrial exposure to petroleum asphalt and cancer in humans. The International Agency for Research on Cancer (IARC) reviewed the carcinogenic potential or asphalts in sonograph 35. They conclude that there was insufficient evidence that undiluted, air-refined asphalt was carcinogenic to animals, while there was only limited evidence that steam-refined asphalts were carcinogenic to animals. Additionally there was insufficient evidence to conclude that asphalts were carcinogenic to human beings. Studies in which mice were exposed to a variety of whole asphalts did not result in any increased cancer rate; mice exposed to asphalts diluted with hydrocarbon solvents had increased incidence of certain types of cancer. Brief or intermittent skin contact with this asphalt product is not expected to produce any delayed effects. While normal handling of this product is not likely to cause cancer in humans, skin contact and breathing of mists, fumes, or vapors should be reduced to a minimum.

Crystalline quartz contained in this product is totally encapsulated and does not present a respirable dust hazard. However, the user is warned that crystalline quartz in respirable form may cause delayed (chronic) lung injury (silicosis). Silicosis is a form of disabling pulmonary fibrosis which can be progressive and may lead to death. There is evidence that exposure to respirable silica or the disease silicosis is associated with an increased incidence of Scleroderma, tuberculosis and kidney disorders.

Carcinogenicity Listings for silica:		
	NTP:	Probable carcinogen
	OSHA:	Not listed as a carcinogen
	IARC Monographs:	Group 1 Carcinogen
	California Proposition 65:	Known carcinogen

NTP: The national Toxicology Program, in its sixth Annual Report on Carcinogens concluded that "silica, crystalline (respirable)" may reasonably be anticipated to be a carcinogen, based on sufficient evidence in experimental animals and limited evidence in humans.

IARC: The International Agency for Research on Cancer ("IARC") concluded that there was "*sufficient evidence* in humans for the carcinogenicity of crystalline silica in the forms of quartz or cristobalite from occupational sources", and that there is "*sufficient evidence* in experimental animals for the carcinogenicity of quartz or cristobalite." The overall IARC evaluation was that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is *carcinogenic to humans* (Group 1)." The IARC evaluation noted that "carcinogenicity was not detected in all industrial circumstances or studies. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." For further information on the IARC evaluation, see IARC Monographs on the Evaluation of carcinogenic Risks to Humans, Volume 68, "Silica, Some Silicates..." (1997)

Pre-existing Medical Conditions Which May be Aggravated by Exposure: Persons with pre existing central nervous system disease, skin disorders, or chronic respiratory disease should avoid exposure to this product.

Eye Contact: Asphalt - no first aid required, however, as a precaution, flush with large amounts of water for at least 15 minutes. Remove contact lenses, if worn. Inorganic particulate materials may cause mechanical irritation. Biocides - wash thoroughly with water. SEEK MEDICAL ATTENTION.

Skin: Asphalt - Remove contaminated clothing, thoroughly wash exposed area with soap and water. Do not use solvents or thinner to remove from skin. Asphalt can be removed with waterless hand cleaners and vegetable or mineral oil. If irritation persists, SEEK MEDICAL ATTENTION.

Inhalation: This material is not expected to be an immediate inhalation problem, no first aid procedures required.

Ingestion: If swallowed, give water or milk to drink and telephone for medical advice immediately. Consult medical personnel before inducing vomiting. If medical advice cannot be obtained, then take the person and product container to the nearest medical emergency treatment center or hospital.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Ventilation: Ventilation should be adequate. Maintain vapor and particulate levels below the applicable exposure limits for asphalt fumes and/or respirable quartz dust.
Respiratory Protection: Use NIOSH/MSHA approved respirator when TLV is exceeded.
Protective Gloves: Use chemical resistant gloves, if needed, to avoid prolonged or repeated skin cancer.
Eye Protection: Use splash goggles or face shield when eye contact may occur.
Other Protective Equipment: Use chemical resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing which could result in prolonged or repeated skin contact.
Work Practices/Engineering Controls: Keep containers closed when not in use. DO NOT STORE NEAR HEAT, SPARKS, FLAME OR STRONG OXIDANTS.
Personal Hygiene: Minimize breathing vapor or mist. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry clean before reuse. Remove contaminated shoes and thoroughly clean and dry before reuse. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

SECTION VIII - CONTROL MEASURES

Steps to be taken if spilled or released:
This material may be toxic to aquatic organisms and should be kept out of sewage and drainage systems and all bodies of water. Keep people away. Recover free product; add sand, earth, or other suitable absorbents. Minimize skin contact and breathing vapors. Ventilate confined spaces; open all windows and doors. Keep product out of sewers and water courses by diking or impounding. Advise authorities if product has entered or may enter sewers, water courses or extensive land areas.

ASSURE CONFORMITY WITH APPLICABLE GOVERNMENTAL REGULATIONS.
Reportable Quantity (RQ), EPA Regulation 40 CFR 302; (CERCLA Section 102): Not Established
Threshold Planning Quantity (TPQ), EPA Regulation 40 CFR 355; (SARA Section 301-304): Not Established
Toxic Chemical Release Reporting, EPA Regulation 40 CFR 372; (SARA Section 313): Not Established

PRODUCT: DRIVEWAY CRACK FILLER MSDS 97-II

EPA Hazard Classification Code: (SARA Sections 311 and 312):

Acute Hazard	Chronic Hazard	Fire Hazard	Pressure Hazard	Reactive Hazard	Not Applicable
	XXX				

Other: This substance contains components subject to the provisions of the Pennsylvania Worker and Community Right to Know Act. Specific chemical identities are trade secrets under the provisions of 35 Pennsylvania State Section 7311.

IX. TRANSPORTATION AND OSHA LABEL INFORMATION

Transportation Incident Information: For further information relative to spills resulting from transportation incidents, refer to latest Department of Transportation Guidebook for Hazardous Materials Incidents, DOT P 5800.3.
DOT Identification Number: Exempt from DOT HM-181 regulation.
OSHA REQUIRED LABEL INFORMATION: In compliance with hazard and right-to-know requirements, the following OSHA Hazard Warnings should be found on a label, bill of lading or invoice accompanying this product. WARNING! CONTAINS PETROLEUM ASPHALT. Note: product label will contain additional non-OSHA information.

Note: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein.

The Environmental Information included under Section VIII hereof as well as the Hazardous Material Identification System (HMIS) and National Fire Protection Association (NFPA) ratings have been included by The QUIKRETE® Companies in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of these rating systems, together with The QUIKRETE® Companies interpretation of the available data.